

What is claimed is:

[Claim 1] 1. An airport runway surrounding surface arrangement comprising a compacted soil surface substantially free from organic matters in order to restrict sources of nutriment for birds, a pile fabric placed over said compacted soil surface, said pile fabric including a plurality of pile elements resembling grass and extending from a backing mat to a predetermined height thereabove, a permeable ballast material for stabilizing said pile fabric in place, said permeable ballast material being provided on said backing mat and having a thickness less than said predetermined height, and a drainage system for directing water from said pile fabric to at least one drain, whereby an airfield is produced having substantially no organic nutrient.

[Claim 2] 2. An airport runway surrounding surface arrangement as defined in claim 1, wherein said drainage system includes a water drainage enabling layer, and a water barrier underlying said water drainage enabling layer for preventing water from percolating downwardly through the soil surface underneath said pile fabric.

[Claim 3] 3. An airport runway surrounding surface arrangement as defined in claim 2, wherein said water barrier defines a sloped surface to cause the water to flow in a desired direction thereon.

[Claim 4] 4. An airport runway surrounding surface arrangement as defined in claim 2, wherein said backing mat is permeable and laid on said water drainage enabling layer.

[Claim 5] 5. An airport runway surrounding surface arrangement as defined in claim 2, wherein said water barrier forms part of said backing mat, and wherein said water drainage enabling layer is provided in said pile fabric on said backing mat.

[Claim 6] 6. An airport runway surrounding surface arrangement as defined in claim 5, wherein said water drainage enabling layer includes particulate material dispersed among said pile elements.

[Claim 7] 7. An airport runway surrounding surface arrangement as defined in claim 4, wherein said ballast material includes particulate material dispersed

among said pile elements, said particulate material being composed of particles cooperating to form therebetween flow paths to allow the water to flow to said water drainage enabling layer.

[Claim 8] 8. An airport runway surrounding surface arrangement as defined in claim 7, further including a bonding agent mixed with said particulate material.

[Claim 9] 9. An airport runway surrounding surface arrangement as defined in claim 8, wherein said bonding agent includes a mixture of cement and sand.

[Claim 10] 10. An airport runway surrounding surface arrangement as defined in claim 4, wherein said water barrier includes an impermeable membrane laid on the soil surface.

[Claim 11] 11. An airport runway surrounding surface arrangement as defined in claim 4, wherein said drainage enabling layer consists of a layer of aggregate.

[Claim 12] 12. An airport runway surrounding surface arrangement as defined in claim 11, wherein said layer of aggregate includes rock particles.

[Claim 13] 13. An airport runway surrounding surface arrangement as defined in claim 5, wherein said water drainage enabling layer includes fibers dispersed among said pile elements on said backing mat.

[Claim 14] 14. An airport runway surrounding surface arrangement as defined in claim 1, further including anti-growth material incorporated into the pile fabric to at least delay vegetation growth.

[Claim 15] 15. A runway bordering surface comprising a pile fabric laid over a compacted soil surface, said pile fabric including a plurality of pile elements resembling grass and extending from a backing mat to a predetermined height thereabove, a permeable ballast material for stabilizing said pile fabric in place, said permeable ballast material being provided on said backing mat and having a thickness less than said predetermined height, and a drainage system for directing surface water from said pile fabric to at least one drain.

[Claim 16] 16. A runway bordering surface as defined in claim 15, wherein said drainage system includes a water barrier to prevent water from percolating downwardly through the compacted soil surface underneath said pile fabric.

[Claim 17] 17. A runway bordering surface as defined in claim 15, wherein said ballast material includes particulate material dispersed among said pile elements, said particulate material forming a water permeable layer.

[Claim 18] 18. A runway bordering surface as defined in claim 17, further including a bonding agent mixed with said particulate material at the edges of a runway to resist dislodgment thereof from said pile fabric.

[Claim 19] 19. A runway bordering surface as defined in claim 18, wherein said bonding agent includes a mixture of cement and sand.

[Claim 20] 20. A runway bordering surface as defined in claim 16, wherein said drainage system includes a drainage enabling layer provided on said water barrier.

[Claim 21] 21. A runway bordering surface as defined in claim 20, wherein said backing mat is permeable, and wherein said water barrier is formed underneath said backing mat and spaced therefrom by said drainage enabling layer.

[Claim 22] 22. A runway bordering surface as defined in claim 20, wherein said water barrier is formed on said backing mat.

[Claim 23] 23. A runway bordering surface as defined in claim 15, further including a light source incorporated in said pile fabric to provide runway side stripe markings.

[Claim 24] 24. A runway bordering surface as defined in claim 23, wherein said light source includes a band of luminescent material provided at a lateral edge of said pile fabric.

[Claim 25] 25. A runway bordering surface as defined in claim 23, wherein said light source includes at least one luminous member running through said pile fabric on said backing mat.

[Claim 26] 26. A runway bordering surface as defined in claim 25, wherein said pile fabric is infilled with glass beads over and around said luminous member, and wherein said luminous member is selected from a group consisting of: a laser beam, light emitting diodes and a crystal light source.

[Claim 27] 27. A method for discouraging birds from frequenting an airfield where they represent a nuisance, comprising the steps of: substantially clearing an airfield area surrounding an airstrip from organic matter susceptible to consumption by birds, leveling soil material in the airfield area, laying a synthetic grass surface over the soil material, and providing water drainage for evacuating water from said synthetic grass surface.

[Claim 28] 28. A method as defined in claim 27, further comprising the step of compacting the soil material once the organic matters have been removed therefrom.

[Claim 29] 29. A method as defined in claim 28, further including the step of exposing the natural soil material by excavation.

[Claim 30] 30. A method as defined in claim 27, further comprising the step of providing a water barrier to prevent water from percolating downwardly through the soil material underneath said synthetic grass surface.

[Claim 31] 31. A method as defined in claim 30, further comprising the steps of placing said water barrier underneath said synthetic grass surface, and providing drainage enabling layer between said water barrier and said synthetic grass surface.

[Claim 32] 32. A method as defined in claim 30, wherein said synthetic grass surface includes a backing mat, and wherein the step of providing a water barrier is effected by rendering said backing mat impermeable to water.

[Claim 33] 33. A method as defined in claim 27, wherein the step of leveling the compacted soil material is effected so as to provide a slope to cause surface water to flow in a desired direction towards a drain installed in the soil.

[Claim 34] 34. An airport runway surface comprising a pile fabric adapted to be laid over a compacted soil surface, said pile fabric including a plurality of pile elements resembling grass and extending from a backing mat to a

predetermined height thereabove, a permeable ballast material for stabilizing said pile fabric in place, said permeable ballast material being provided on said backing mat and having a thickness less than said predetermined height, a drainage system for directing surface water from said pile fabric to at least one drain, and runway markings incorporated in said pile fabric for guiding pilots along the airport runway surface during airplane taking-off and landing operations.

[Claim 35] 35. An airport runway surface as defined in claim 34, wherein said runway markings include a light source.

[Claim 36] 36. An airport runway surface as defined in claim 35, wherein said light source includes at least one light source member selected from a group consisting of: a laser beam, light emitting diodes and crystal light source.

[Claim 37] 37. An airport runway surface as defined in claim 36, wherein said light source further includes a plurality of reflective particles distributed in said pile fabric above and around said light source member.

[Claim 38] 38. An airport runway surface as defined in claim 37, wherein said light source includes two laterally spaced-apart light source cables, said pile fabric being infilled over and around said cables with said reflective particles so as to provide runway side stripe markings.

[Claim 39] 39. An airport runway surface as defined in claim 36, wherein said light source member is laminated into the pile fabric.

[Claim 40] 40. An airport runway surface as defined in claim 35, wherein said light source includes a band of luminescent fabric material incorporated to said pile fabric.